

ASTR1904: Lab II – Section 001

Grading Rubric

Lab Write-Up Guidelines

The primary goal of this class is to teach you how science is actually done. This means, in part, keeping a record of everything. Please write down everything you do in the order you do it. State assumptions, show work for calculations, and so on. You will do most labs with a partner, but make sure to keep your own records. I should be able to reproduce your answers with just the information in your notebook. Below are some formatting and specific content requests.

- Begin each lab writeup on a new page (or document) and have your name, your partner's name, the lab title, and the date at the top.
- Always include units on numbers with units, and always label plot axes.
- Put a box around (or highlight) numerical answers (and make sure to show your work!)

Grading Rubric

Each lab write-up will be assigned a grade out of 10. The points will be assigned based on three categories:

1. **Clarity of writing:** (Maximum 4 points)

- 1 point: Little or no justification of answers, hard to follow explanations or logic.
- 2-3 points: Explanations are reasonable and the logic holds up, but additional clarification may be in order, scientific terms are used appropriately most of the time, pre- and post-lab reflections are completed for every lab.
- 4 points: Explanations are clear and every answer is fully justified, scientific terms are used correctly, and pre- and post-lab reflections are thoughtful and raise additional questions about the subject matter.

2. **Use of graphs, diagrams, and equations:** (Maximum 3 points)

- 1 point: Graphs, diagrams, and equations are rarely used where appropriate, not well explained, or lack axis labels or legends.
- 2 points: A valid attempt is made to use graphs, diagrams, and equations appropriately, though they are not always used in the correct context or they are not fully explained.
- 3 points: Graphs, diagrams, and equations are used appropriately, are well explained, and relate directly to the lab assignment.

3. **Correctness of answers:** (Maximum 3 points)

- 1 point: The answers are incorrect and off by many orders of magnitude, in a way that should have made it clear that the answer is incorrect.
- 2 points: The answers are incorrect, but could be reasonable given the question. Alternatively, the answers are incorrect and off by many orders of magnitude, but are identified as such and a hypothesis is made as to why they are off by so much.
- 3 points: The answers are correct to within an order of magnitude (or to the degree of accuracy specified by the specific question).